# THE RELATIONSHIP BETWEEN MOTIVATION & ENGAGEMENT IN ONLINE LESSONS: THE ROLE OF PERFORMANCE GOALS

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## Abstract

**The initial results from the Regulating Motivation and Performance Online (RMAPO) project found that when students were provided reasons to value learning basic HTML skills in an online lesson, they modeled the effects of sample HTML codes in examples and exercises (Modeled) to a greater degree. Greater modeling, in turn, was related to greater performance (Quiz Scores). Because greater modeling was associated with higher performance outcomes, the purpose of the present study was to examine whether spontaneously cited Performance Goals (participant's will to perform to a certain standard) predicted the degree to which students modeled the sample codes. Undergraduate volunteer participants (n=108) were asked to address goals in regards to what they hoped to gain from the online HTML lesson ("What are your personal goals for working on this lesson?"). The participants' goals were subsequently coded into the following categories: "performance," "finishing," "affect," "usefulness," "learning," and "credit." Within the lesson, participants were able to engage in examples and exercises at varying degrees. The findings revealed that participants, who set Performance Goals were more likely to model the effects of sample HTML codes in examples and exercises to a greater degree. Although the initial study revealed that enhancing value was shown to lead to a greater degree of modeling, and in turn, higher quiz scores, the findings also reveal that participants' identification of Performance Goals lead to greater degree modeling and subsequently indirectly increase performance outcomes. Findings suggest that both external and internal motivators are factors that lead to increased engagement within an online lesson, which in turn leads to greater performances outcomes (Quiz Scores).**

## Introduction

- **The initial results from the Regulating Motivation and Performance Online (RMAPO) project found that when students were provided reasons to value learning basic HTML skills in an online lesson, they modeled the effects of sample HTML codes in examples and exercises (Modeled) to a greater degree. Furthermore, greater modeling predicted higher quiz scores at lesson conclusion (Performance) (Sansone, Fraughton, Zachary, Butner, & Heiner, 2011). Such findings indicate a relationship between internal and/or external motivators and engagement, and are supported in the following preexisting literature: a previous study revealed a link between students' "self-determination and achievement goals" and their "behavioral and emotional engagement in schoolwork (Shih, 2008) ." Additionally, goals (i.e. social approval) are related to the use of strategies in study engagement (Valle, Cabanach, Rodríguez, Núñez, González-Pienda, 2006). Research also indicates that achievement motivation is related to greater engagement and positive performance outcomes (Quiz Scores) (Elliot & Church, 1995) as well as setting performance and engagement goals (Elliot & Church, 1997).**
- **In this study, we determine if participants' spontaneously cited goals reflect on types of goals pertinent to Goal-Oriented Motivation and furthermore predict the degree to which participants engage in examples/exercises (Modeled). Findings from an earlier version of this study and pre-existing literature on performance goals, engagement, and outcomes provided a prompt to investigate the relationship between spontaneously cited performance goals and greater engagement.**

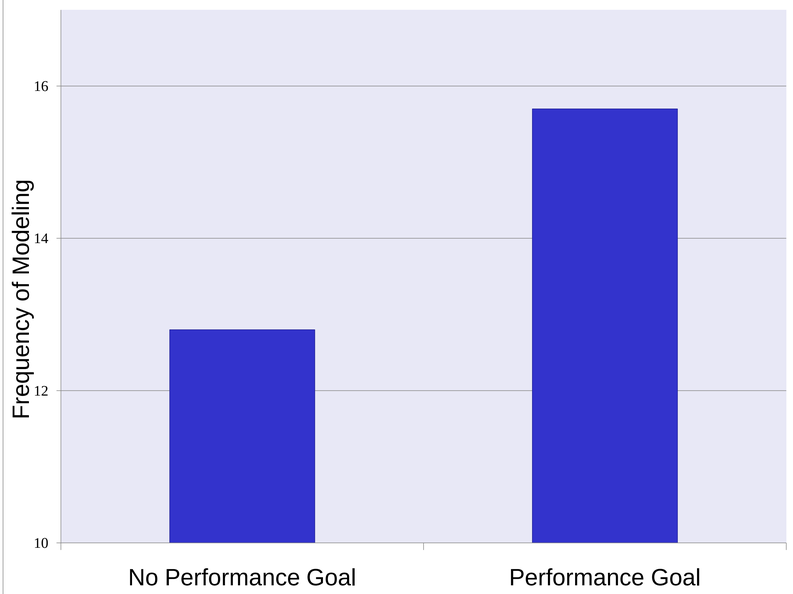
## Method

- A sample of students in undergraduate psychology courses participated for course credit (n=108, 67% female).
- Participants were randomly assigned to one of three conditions of varying utility values:
  - No Value (will learn HTML skills)
  - Personal Applications (will learn HTML skills valuable for personal use)
  - Organizational Applications (will learn HTML skills valuable for business/organizational use)
- Prior to the beginning of the lesson, participants responded to an open-ended question that asked what their personal goals for working on the lesson were. Their responses were subsequently coded for the presence or absence of the following goals (inter-rater reliability = r; Cronbach's α):
  - *Performance*: participants wished to complete the lesson to some sort of explicit/implicit standard (r = .86, Cronbach's α = .95)
  - *Learning*: participants mentioned learning new skills as a goal of lesson completion (r = .94, Cronbach's α = .98)
  - *Credit*: participants cited the goal of lesson completion as receiving course credit (r = 1.00, Cronbach's α = 1.00)
  - *Finishing*: participants cited finishing the lesson was in itself the goal (r = 1.00, Cronbach's α = 1.00)
  - *Affect*: participants cited any discernable sign of interest and/or affect in regards to the lesson (r = .79, Cronbach's α = .92)
  - *Usefulness*: participants cited potential practical usefulness of the lesson in outside endeavors (r = 1.00, Cronbach's α = 1.00)
  - *Other*: participants cited goals not pertaining to predetermined categories (Cronbach's α = .88)
- Participants completed a 90-minute lesson on online HTML programming in a lab.
- The frequency of participant modeling of sample HTML codes in optional examples/exercises within the lesson was measured (Degree Modeled: Mid – Level Engagement)
- Subsequently, a post-lesson quiz on HTML programming was administered to assess knowledge as measure of Performance (Quiz Score).

## Results

- **Degree-Modeled (Mid-Level Engagement) was regressed on whether or not participants mentioned the different types of goals, controlling for the number of times that participants simply accessed examples/exercises (Low-Level Engagement):**
  - **The overall model was significant (f(7,100) = 4.83, p < .000)**
- **Only the main effect for Performance Goals was significant. Participants that began the lesson with specific, predetermined Performance Goals modeled the examples (Mid-Level Engagement) at a higher frequency in comparison to those who did not have specific Performance Goals (See Fig. 1).**
  - **(t(107) = 2.30, ρ = .024, b = 4.23)**

**Figure 1**
**Degree Modeled**




## Conclusion

- **Regression analysis revealed that there is a positive correlation between goals coded as "Performance Goals" and Mid-Level engagement in examples.**
- **Results reveal that "Performance Goals" lead to higher degree modeling and subsequently, greater performance outcomes (Quiz Scores).**
- **The results of the initial and current study suggest that both external and internal motivators are factors that lead to increased engagement within an online lesson, which in turn leads to greater performances outcomes (Quiz Scores).**
- **The findings implicate that further research regarding internal and external motivators should be continued to further develop potential strategies of increasing effectiveness in the rapidly developing arena of online learning.**

References

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